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Decision 02-08-034 August 8, 2002

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's Proposed Policies and Programs Governing Low-Income Assistance Programs.	Rulemaking 01-08-027 (Filed August 23, 2001)

INTERIM DECISION: LOW-INCOME ENERGY EFFICIENCY PROGRAM AND MEASURE COST-EFFECTIVENESS TESTING

Summary[1]

This decision adopts a methodology for testing the cost-effectiveness of the Low-Income Energy Efficiency (LIEE) program as a whole and of the specific measures offered under that program. Consistent with the policies articulated in Decision (D.) 01-12-020, today's adopted methodology considers the cost-effectiveness of the LIEE program and measures from two perspectives: cost efficiency from the perspective of the non-participant, and hardship reductions from the perspective of the participant.

To this end, we apply two cost-effectiveness tests, each presented in the form of a benefit-cost ratio. The first test calculates the ratio of benefits to participating ratepayers, (bill savings and non-energy related benefits such as improved comfort) to the total program costs. The second test calculates the

[1] Attachment 1 explains each acronym or other abbreviation that appears in this decision.

ratio of resource benefits to the total program costs. A measure is deemed to have "passed" the cost-effectiveness test if its benefit-cost ratio is greater than or equal to the average program benefit-cost ratio for that utility.

Decisions on the inclusion and exclusion of measures for LIEE will not be made exclusively on the basis of cost-effectiveness tests, but will also explicitly take into account policy and program considerations. More specifically, we adopt the following decision rules:

- Measures that have passed both tests are included in the LIEE program. This applies for both existing and newly proposed measures.
- Existing measures that pass one of the two tests are retained in the program. New measures meeting this criterion are not accepted because of the substantial effort required to integrate a new measure.
- Existing and new measures that do not pass either test will be excluded from the LIEE program unless substantial argument can be made that significant non-energy benefits are not currently being accounted for in the test values, or there are other policy or program considerations that require the measure to be retained.

A detailed description of today's adopted methodology is presented in Attachment 2. As discussed in today's decision, we augment Attachment 2 in two ways. First, we add the requirement that a detailed rationale be provided for accepting or rejecting measures that fall under the policy or program consideration guideline described above. Second, we require that the cost-effectiveness tests be presented for attic insulation by each climate zone, as well as by each aggregate utility service territory.

Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SG&E), Southern California Edison Company (SCE) and Southern California Gas Company (SoCal), referred to collectively as "the utilities" are

directed to apply the adopted methodology to their LIEE programs until further order by the Commission. Within 45 days from the effective date of this decision, the utilities shall augment their July 1, 2002 program planning applications in Applications (A.) 02-07-001 et al. with an evaluation of the LIEE program and measures using today's adopted methodology. Comments are due 45 days from the date of the utilities' filing, and replies are due 20 days thereafter.

As discussed in this decision, we intend to initiate an examination of the utilities' current methods for estimating energy efficiency program and measure savings sometime during 2003, as time and resources permit. Our consideration of these issues will need to be coordinated with the Annual Earnings Assessment Proceeding (AEAP), where we determine shareholder earnings for energy efficiency programs based on estimated energy savings.

Background

Pub. Util. Code § 2790(a) directs the Commission to consider "both the cost effectiveness of the services and the policy of reducing the hardships facing low-income households" in designing LIEE programs. Currently, we report the cost-effectiveness of LIEE programs using three specific tests, each reflecting a different perspective. These tests originated as part of a Standard Practice Manual developed in the 1980s to evaluate demand-side management (e.g., energy efficiency) programs in general, and have been updated periodically since then.[2] In D.01-03-028, we authorized the continued use of these tests for LIEE programs until further refinements could be developed for our consideration.

[2] The latest version is: California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October, 2001.

The Participant Cost (PC) test measures benefits and costs from the perspective of the customer receiving the measures or services. This test compares the reduction in the customer's utility bill, plus any incentive paid by the utility, with the customer's out-of-pocket expenses. For LIEE program measures, where there generally are no out-of-pocket expenses to the eligible customer, the PC measures the bill savings associated with the program or measure.[3]

The Utility Cost (UC) test measures the net change in a utility's revenue requirements resulting from the program. The benefits for this test are the avoided supply costs of energy and demand, i.e., the reduction in transmission, distribution, generation and capacity costs valued at marginal cost, for the periods when there is a load reduction. The costs for the UC test are the program costs incurred by the utility, including any financial incentives paid to the customers, and the increased supply costs for the periods in which load is increased. Since this test is designed to focus on utility revenue requirements, it does not include any net costs incurred by program participants.

The Total Resource Cost (TRC) test measures the net costs of a program as a resource option based on total costs, including both the participants' and the utility's costs. The benefits are calculated in the same manner as the UC test described above. The costs in this test are the total equipment or measures costs, including installation, operation, and maintenance and administration, no matter who pays for them. In addition, costs for this test include the increase in supply costs for the periods in which load is increased. When there are no co-payments

[3] Landlord co-payments are required for certain equipment installations in rental units, under certain circumstances.

or other out-of-pocket expenses required by the program participant, the TRC and UC tests are identical.

In our ongoing efforts to improve the cost-effectiveness testing of LIEE programs, we directed the Reporting Requirements Manual (RRM) Working Group and the Standardization Project Team to explore various issues related to these cost-effectiveness tests and their application to the LIEE program as a whole and specific measures.[4] The RRM Working Group consists of Commission staff and representatives from the utilities, but is open to all interested parties. We periodically call on this ad hoc group to assist us in developing the program definitions, formats and methodologies for recording costs and effects of energy efficiency programs, including low-income assistance programs. The Standardization Project Team provides us with input regarding statewide LIEE program design and uniform installation procedures. This group consists of the utilities and the project consultants: Regional Economic Research, Inc. (RER) and Richard Heath and Associates (RHA). The Commission's Energy Division assists in coordinating the effort.

As currently applied, the cost-effectiveness tests described above do not include any non-energy benefits associated with the LIEE program. For example, the PC test does not include the benefit of improved comfort from weatherization. The UC test does not include savings from reduced bad debt write-offs or other impacts that saves the utility (and ratepayers) costs. The RRM Working Group quantified these and other non-energy benefits for our

[4] See Assigned Commissioner's Ruling in R.98-07-037, dated April 28, 2000; D.00-09-036, *mimeo.*, pp. 21-22; D.01-03-028, *mimeo.*, pp. 46-48; Assigned Commissioner's Ruling on Low-Income Standardization Project in R.98-07-037, dated June 6, 2001.

consideration and, in D.01-12-020, we directed the utilities to include them in their cost-effectiveness testing of LIEE programs and measures.

We also considered the RRM Working Group's proposal for a new multi-purpose test, called the Low Income Public Purpose Test, to evaluate the LIEE program and program measures. For reasons discussed in that decision, we rejected the use of this test.[5] Instead, we directed the utilities to evaluate the LIEE program and individual measures by calculating both the PC and UC tests, as modified to include the non-energy related benefits associated with each perspective. We referred the following issues back to the RRM Working Group and Standardization Project Team for further evaluation and recommendations:

> "…how the results of each test should be used in making final measure selections, or in evaluating the effectiveness of LIEE programs from year-to-year or across utilities. We must consider whether there should be a pre-determined method (e.g., weighting) of the tests established at the outset, or whether the process should involve more case-by-case judgments of test results, or whether other approaches should be used."[6]

In addition, we directed the RRM Working Group and Standardization Project Team to further consider the issue of "gross" versus "net" costs and savings in measure and program evaluation. Using gross savings and costs assumes that the old equipment would not have been replaced for some number of years at least as great as the lifetime of the new equipment. The incremental, or net approach assumes that the measures would have been replaced with standard efficiency new units in the absence of the installation of high efficiency units.

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[5] D.01-12-020, pp. 53-60.

[6] *Ibid.*, p. 59.

The RRM Working Group and Standardization Project Team appointed a joint Cost-Effectiveness Subcommittee (also referred to as "Subcommittee" in this decision), to develop these issues for our further consideration.[7] The Subcommittee held public workshops on cost-effectiveness issues in San Francisco on March 26 and in San Diego on March 27, 2002. Representatives from the following organizations attended one or both workshops: the utilities, RER, RHA, ORA, Energy Division and Equipose Consulting, Inc. The Subcommittee filed its Final Report for Low Income Energy Efficiency and Measure Cost Effectiveness (Report) on April 8, 2002. Comments on the report were filed by the Insulation Contractors Association (ICA) and ORA on April 29, 2002. Reply comments were filed by ICA and the Subcommittee on April 30, 2002.

Cost-Effectiveness Subcommittee Recommendations

Attachment 2 presents the recommendations of the Cost-Effectiveness Subcommittee with regard to the cost-effectiveness testing of LIEE programs and individual measures. Attachment 2 also presents illustrative test results by utility and measure using PY2000 data. To summarize, the Subcommittee recommends the following:

- Calculate UC and PC benefit-cost ratios for the program as a whole and for each measure. Because the PC benefit-cost ratio is an undefined number (participants costs are zero), use a modified PC or "PCm," whereby the participant benefits are divided by the utility costs.

[7] Subcommittee members were comprised of representatives of the following organizations: PG&E, SCE, SDG&E, SoCal and the Office of Ratepayer Advocates (ORA). Energy Division also attended the discussions.

- Allocate the non-energy to individual measures based on the lifecycle monetary benefit of the installed measure. This approach should be considered a proxy now, to be reevaluated as better information becomes available.
- Use the following general three-stage approach to screening measures:
    1. Measures that have both a PCm and a UC benefit cost ratio greater than or equal to the average program PCm and UC for that utility should be included in the LIEE program. This applies for both existing and newly proposed measures.
    2. Existing measures with one of the two benefit-cost ratios less than the average program PC_m and UC for that utility should be retained in the program. New measures meeting this criterion would not be accepted because of the substantial effort required to integrate a new measure.
    3. Existing and new measures with both the PC_m and UC test results less than the average program PC_m and UC for that utility should be excluded from the LIEE program unless substantial argument can be made that significant non-energy benefits are not currently being accounted for in the PC_m and UC test values or there are other policy or program considerations that require the measure to be retained.
- Use "gross" savings and costs for all measures in the LIEE program, including the new rapid deployment measures introduced by D.01-05-033. Revisit this issue for any additional measures brought into the LIEE program, as they are incorporated.

Overall, the Cost-Effectiveness Subcommittee recommends that decisions on the inclusion and exclusion of measures for LIEE not be made based solely on measure cost-effectiveness test numbers. In making comparisons between utilities on an overall program basis, the Subcommittee notes that there are, effectively, only three service areas because the customers of SCE and SoCal overlap. The Subcommittee recommends that the benefits and costs for SCE and

SoCal be considered together for determining a single value for the PC_m or UC test results. Although the Subcommittee believes that year-to-year comparisons of results for a single utility could be instructive and informative in terms of whether the program is becoming as cost efficient as possible over time, it recommends that particular caution be used in comparing across utilities in a single year:

> "…variations between the utilities are due to differences in the installed measure mix, the customer mix, and gas versus electric savings. As the standardization of the program continues and is applied consistently, some, but not all, of the variability based on measure mixes will diminish. Moreover, the effects of the other factors mentioned above will continue to cause variations across utilities for any given year. For example, compact fluorescent bulbs provide high electric savings. If a utility has a large number of this measure installed compared to another utility, then the overall program cost effectiveness ratio may be different due to the installed measure mix. While it is useful to compare between utilities for a single year, these points need to be kept in mind."[8]

Finally, with regard to the "gross" versus "net" issue, the Subcommittee contends that this is currently only a practical issue for the high efficiency refrigerator measures and some of the rapid deployment measures, which the Subcommittee argues should be evaluated on a gross basis:

> "Weatherization measures (such as caulking and weatherstripping) are considered to have no "standard efficiency" level. They are either installed or not – therefore all weatherization measures are "gross" costs and savings. The same argument is made for the remainder of the electric appliances and gas appliance measures. This issue is not applicable to gas furnace replacement since the units are only replaced if broken. It is assumed that the customer

[8] Attachment 2, p. 25.

> would (or could) not replace the current unit at all, but would find a different way to heat their premises. Therefore, there is no "standard efficiency" level that would apply when determining costs or savings.
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> "For the refrigerator measure it is the position of the [Subcommittee] that the most likely replacement for a broken refrigerator for the LIEE customer is a used refrigerator of comparable vintage or efficiency. It is considered highly unlikely that LIEE customers would buy a new standard efficiency refrigerator upon failure. "Additionally, the [Subcommittee] reviewed the current list of rapid deployment measures fielded during 2001, and concluded that the use of the "gross" costs and savings would seem to apply to them as well."[9]

Positions of the Parties

In ORA's opinion, the Subcommittee's modification to the PC test contravenes the intent of D.01-12-020 and the purpose of that test. Specifically, ORA argues that the participant's "opportunity costs" should be quantified and used in the denominator of the PC benefit-cost ratio, rather than the utility's costs. ORA suggests that this opportunity cost, or value of time, be calculated by ascertaining the hourly wage rate of those who use the program, and applying that value to the hours spent by the participant while the measures are being installed.

ORA supports setting the cost-effectiveness thresholds to current average program levels, as proposed by the Cost-Effectiveness Subcommittee. However, ORA recommends that the evaluation include a detailed description of any policy or program considerations that were applied in deciding whether to ultimately reject or accept measures.

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[9] *Ibid.*, pp. 27-28.

ICA recommends that the Commission eliminate the use of the UC test as part of any criterion for judging the LIEE program or measures, and clarify that the PC_m test is the primary test of cost-effectiveness. In addition, ICA recommends that the Commission utilize a 5% discount rate to calculate the results of the test, rather than the 8.15% used by the Subcommittee.

With regard to the test results, ICA believes that it is premature to use the data from the Subcommittee report to select or eliminate specific measures. If used at all, ICA recommends that a very significant safety factor (i.e., 50%) be included to avoid error. In particular, ICA is highly skeptical of measure savings estimates if they are not based on actual testing for measured savings (as opposed to engineering estimates), such as bill analyses. ICA also believes that significant error is introduced in the cost or benefit allocation to individual measures. In particular, ICA questions the results for attic insulation shown in the report, especially for single family homes.

Discussion

In D.01-12-020, we articulated our expectations regarding the cost-effectiveness evaluation of the LIEE program as follows:

> "In our view, the LIEE program should be examined from two different perspectives, with some weighing and judgment applied to the results in selecting eligible measures or in evaluating overall program effectiveness.
>
> "The first perspective is that of the low-income customer, in terms of reducing hardship. This includes bill savings, as well as non-energy benefits that the program or measure provides to the recipient. When augmented with these non-energy benefits, the PC test provides this perspective. Since the low-income customer generally incurs no out-of-pocket expenses (making the cost component of the test essentially zero), applying the PC test to LIEE programs or measures produces a relative ranking based on hardship benefits to the participating customer.

"Our evaluation of the program or individual measures cannot end with simply maximizing the hardship benefits to low-income customers. As previously stated in D.00-07-020, cost efficiency is to be evaluated and considered as well:

> "…we should strive to maximize the participation of eligible participants and work to reduce their electric and gas bills as much as possible, within the constraint of limited funding. At the same time, to protect the interests of non-participating ratepayers that subsidize the costs of the program, we need to ensure that service delivery is as efficient as possible."

"Meeting the needs of low-income customers as cost-efficiently as possible is also the stated intent of the Legislature, as articulated in Pub. Util. Code §2790, recently amended by AB 1393. This section directs the utilities to meet the need for weatherization services by low-income utility customers 'taking into consideration both the cost-effectiveness of the services and the policy of reducing the hardships facing low-income customers.' Consistent with that intent, we have defined the program in our DSM rules as serving 'an equity objective in assisting customers who are highly unlikely or unable to participate in other residential programs' and therefore the program is not subject to strict cost-effectiveness requirements. At the same time, we have promoted the consideration of cost-efficiency in the provision of these services."[10]

"Therefore, we need to also evaluate the LIEE program and individual measures from a cost-efficiency perspective, in terms of the resources required to provide services to low-income customers. Only the UC test is designed to examine cost-efficiency from the perspective of those customers who directly subsidize the program costs through their rates, i.e., non-participating customers. As discussed above, the cost side of the equation is virtually identical under the TRC and UC tests, as is the calculation of energy-related benefits (avoided costs). The benefits side of this test should be enhanced to include reduced carrying costs on arrearages, lower bad

[10] D.00-07-020, mimeo. pp. 36-37.

> debt written off, fewer notices and collection costs, and the other non-energy benefits that reduce utility revenue requirements."

Accordingly, our task is to decide how best to take the two perspectives into account--cost-efficiency from the perspective of the non-participant, and hardship reduction from the perspective of the participant—to produce a meaningful method for evaluating the LIEE program as a whole and for determining whether or not specific measures should be offered. In D.01-12-020, we did not predetermine how this should be done, but rather directed the RRM Working Group and Standardization Project Team to evaluate options (e.g., weighting the tests, case-by-case judgments of test results, or other approaches) and make recommendations for our consideration. We also instructed the utilities and interested parties to review our discussion in D.92-09-080 of various proposals for combining cost-effectiveness tests in the context of evaluating bids under our pilot energy efficiency bidding program.[11]

As we recognized in D.01-12-020, our task is complicated by the fact that generally the out-of-pocket cost to participants for the LIEE measures are zero. By definition, this means that a benefit-cost ratio using the PC test is undefined. We do not take issue with ORA's observation that there are also out-of-pocket "opportunity costs" to the program participant associated with the time spent during the program process, such as visits from utility representatives or contractors while the measures are installed and during inspections. However, while it may be theoretically possible to estimate the opportunity cost of an individual's time, this is not a simple or straightforward exercise, and would require significant data and resources. For example, such an effort would

[11] D.01-12-020, pp. 59-60.

require estimating the time spent by each participant, the relevant wage for valuing the participant's time, the different valuations that individuals place on their time, and determining a way to relate those differences to the valuation of obtaining energy efficiency measures.

More importantly, however, the approach that ORA proposes would result in the opportunity costs of the participant becoming a significant driver of the PC test. As the Subcommittee points out in their reply comments, this raises the prospect that measures with the fastest installation time may prove to be the most cost-effective:

> "If the cost were measured in terms of the participants' time, then short installation times would yield very low cost. Even with small benefits, these measures would look very cost effective, more so than other measures with much larger energy savings but slightly longer installation times. This means that the utilities might begin to focus on programs based on installation times rather than true energy savings benefits to the participant."[12]

In contrast, the Subcommittee's approach to addressing the denominator problem with the PC test produces a benefit-cost ratio that maximizes the participants benefits given the program dollars. This approach is consistent with our stated objectives for the LIEE program, as discussed above. It is also similar in concept to the manner in which we have combined cost-effectiveness tests in our evaluation of energy efficiency bids:

> "As discussed above, our objective is to encourage bidders to propose, and the utility to select, bidder projects that maximize total resource net benefits in a manner that achieves the 'biggest band for the buck' with program funds. The most explicit way to translate this objective into cost-effectiveness criteria is to look at the level of

[12] Subcommittee Reply Comments, May 30, 2002, p. 3.

> total resource net benefits per dollar of utility program expenditures. This approach explicitly assesses whether the incremental increase in resource benefits attributable to higher customer rebates or more intensive marketing approaches is the most efficient use of additional ratepayer funds." [13]

In sum, we find that the Subcommittee's modified PC test is consistent with the purpose defined by this Commission. It makes use of the tests defined in the Standard Practice Manual, while appropriately compensating for the insufficiency of the PC to be defined as a benefit-cost ratio without some modification. While the participant's time should be of concern in the design and implementation of LIEE programs, we do not adopt ORA's proposal to estimate the associated opportunity costs in our evaluation of cost-effectiveness, for the reasons stated above.

ICA's recommendation that we eliminate the UC test from consideration appears inconsistent with the language of D.01-12-020, in that we specifically refer to that test as one of the two to be used for LIEE cost-effectiveness evaluation. However, as ICA points out, the Subcommittee's approach to modifying the PC test does incorporate cost-efficiency objectives into that test. This raises the question of whether or not a separate UC test is still meaningful. We received further comment on this issue from ORA, the utilities and ICA.

ORA believes that, if leveraging of funds to maximize participant benefits is the most important objective in examining cost-effectiveness, then the UC test is no longer necessary. The utilities contend that UC test is also needed in evaluating LIEE measures because it determines the net benefits to the general ratepayers who subsidize the program. In their view, large disparities between

[13] D.92-09-080, 45 CPUC 2d, 541, 576.

the PC_m test and the UC test can help in determining a basis for rejection or acceptance of a specific measure, particularly for high-cost items. ICA argues that the PC_m captures the more meaningful measure of cost-efficiency.

We will apply the testing procedures proposed by the Subcommittee, as modified below, to specific LIEE measures before making a final determination on whether the UC test should be retained. In this way, we can evaluate the specific instances where a measure does not pass the UC test, but does pass the PC_m test (or vice versa), and carefully consider the different positions on whether both tests are needed.

With regard to the selection of a discount rate, we note that the 8.15% rate selected by the Subcommittee is consistent with the 5% rate proposed by ICA, when adjusted for inflation. This discount rate is also consistent with the one used in our cost-effectiveness evaluation of PY2000 energy efficiency programs.[14] We find that it is reasonable.

In response to ICA's concerns about the savings estimates for specific measures, the Subcommittee states that bill savings analysis has already been used in many of the measurement and evaluation studies conducted on the LIEE program. Moreover, the utilities are currently conducting an impact evaluation of the LIEE program, which will generate updated estimates of savings.[15] ICA has not justified the need for requiring additional bill savings analyses at this time, given the costs involved and potential disruption to the household, or that alternate methods of estimating measure savings are inherently unacceptable.

[14] See October 25, 2000 ruling of ALJ Bytof in A.99-09-049 et al.

[15] Attachment 2, p. 19.

Nonetheless, program measurement issues should be revisited periodically. To this end, we will initiate an examination of savings measurement issues for the LIEE program sometime during 2003, as time and resources permit. We will examine the utilities' current methods for estimating energy efficiency program and measure savings, as well as the types and frequencies of the utility's measurement studies. Our consideration of these issues will need to be coordinated with the AEAP, where we determine shareholder earnings for energy efficiency programs based on estimated energy savings. For example, on the low-income side, earnings are currently based on actual energy efficiency expenditures subject to a minimum performance standard. This standard, in turn, is based on first-year energy savings from measures actually installed.[16]

We delegate to the Assigned Commissioner the task of developing the scope and schedule for this review as a separate phase of this rulemaking, in conjunction with the PY2004 LIEE program planning process or by other means (i.e., a new proceeding), as appropriate.

With regard to the results presented in Attachment 2, we share ICA's concern that the proposed methodology produces questionable results for attic insulation, even if those results are considered preliminary. In fact, we have spent considerable time determining the appropriate level of attic insulation across climate zones within each utility's service territory, based on what level will produce the highest net benefits (present value of savings less the installed

[16] See D.01-06-082, pp. 15-19.

costs).[17] One would therefore expect that this measure would at least pass the PC_m test in the colder climate zones. And yet, this measure generally fails the cost-effectiveness threshold for both tests when considered under the Subcommittee's proposed methodology. (See Attachment 2, Exhibit 4.6.)

These counter-intuitive results may be explained by the fact that the Subcommittee's evaluation of attic insulation does not differentiate among the various climate zones within a utility's service territory. We believe that this is a serious shortcoming in the methodology with respect to this measure since, as

[17] See, in particular, D.01-03-028, pp. 26-30, D.01-12-020, pp. 41-46. In those decisions, we refer to "ceiling insulation," which is another way of referring to attic insulation.

discussed above, our adopted installation procedures specifically recognize that the cost-effectiveness of attic insulation varies by climate zone. Accordingly, we will modify the proposed methodology by requiring that the PC_m and UC tests results be presented for attic insulation on both an aggregated and disaggregated basis, i.e., by each climate zone. Nothing in today's decision is intended to preclude the utilities from presenting disaggregated test results (e.g., by housing type or climate zone) for any LIEE measure.

Finally, we concur with ORA's recommendation to provide detailed rationale for accepting or rejecting measures that fall under the policy or program considerations guideline. We note that the Subcommittee has already agreed to make this modification.[18] In addition, as proposed by the Subcommittee, we will reevaluate the net versus gross issue for all new measures brought into the LIEE program, as they are incorporated, to be sure that the logic of using gross costs and savings still applies.

With the modifications discussed above, we adopt the Subcommittee's recommended cost-effectiveness procedures set forth in Attachment 2. The utilities should apply these procedures to the LIEE program and program measures, and report the results and their recommendations for our consideration in A.02-07-001 et al. The utilities filings are due 45 days from the effective date of this decision. Comments are due 45 days from the date of the utilities' filings, and replies are due 20 days thereafter.

Need for Expedited Consideration

Rule 77.7(f)(9) of the Commission's Rules of Practice and Procedure provides in relevant part that:

[18] Subcommittee Reply Comments, May 30, 2002., p. 7.

> "...the Commission may reduce or waive the period for public comment under this rule...for a decision where the Commission determines, on the motion of the party or on its own motion, that public necessity requires reduction or waiver of the 30-day period for public review and comment. For purposes of this subsection, "public necessity" refers to circumstances in which the public interest in the Commission adopting a decision before expiration of the 30-day review and comment period clearly outweighs the public interest in having the full 30-day period for review and comment. "Public necessity" includes, without limitation, circumstances where failure to adopt a decision before expiration of the 30-day review and comment period...would cause significant harm to public health or welfare. When acting pursuant to this subsection, the Commission will provide such reduced period for public review and comment as is consistent with the public necessity requiring reduction or waiver."

We balance the public interest in quickly addressing these low-income assistance matters against the public interest in having a full 30-day comment cycle on the decision draft. We conclude that the former outweighs the latter. A reduced period for review and comment balances the need for parties' input with the need for timely action. Comments were filed on July 17, 2002 by ORA, ICA and utility members of the Cost-Effectiveness Subcommittee. ICA filed reply comments on July 31, 2002. In response to these comments, we extend the due dates for the cost-effectiveness evaluation of LIEE measures and comments contained in the draft decision, and make minor corrections and clarifications to that decision. However, we do not make any substantive changes to the disposition of issues.

Findings of Fact

1. The PC benefit-cost ratio is undefined for the LIEE program because the denominator is generally zero, i.e., participants do not usually pay for any portion of the measures installed.

2. ORA's proposal to estimate the opportunity cost of the participants' time spent on the program process, and use those costs in the PC test denominator, would result in the program process time becoming a significant driver of the PC test and could drive the choice of measures.

3. ORA's proposal would require significant time, data and resources to implement. Such an effort would require estimating the time spent by each participant as well as the relevant wage for valuing the participant's time. It would also need to consider the different valuations that individuals place on their time and relate those differences to the valuation of obtaining energy efficiency measures.

4. The Subcommittee's approach to addressing the denominator problem with the PC test produces a benefit-cost ratio that maximizes the participants benefits given the program dollars. This approach is consistent with the Commission's stated objectives for the LIEE program, and is similar in concept to the manner in which we have combined cost-effectiveness tests in the evaluation of energy efficiency bids.

5. The Subcommittee's approach to modifying the PC test incorporates cost-efficiency objectives into the PC test, which raises the issue of whether or not a separate UC test is still meaningful.

6. The 8.15% discount rate used by the Subcommittee is consistent with the one used in our cost-effectiveness evaluation of PY2000 energy efficiency programs.

7. ICA has not justified the need for requiring additional bill savings analyses at this time, given the costs involved and potential disruption to the household, or that alternate methods of estimating measure savings are inherently unacceptable.

8. Program savings measurement issues should be revisited periodically.

9. The Subcommittee's evaluation of attic insulation does not present test results by climate zone, even though the installation procedures specifically recognize that the cost-effectiveness of this measure varies depending on the climate in which it is installed.

10. The Subcommittee's report does not require that a detailed rationale be presented when selecting or rejecting measures based on policy or program considerations.

Conclusions of Law

1. The Subcommittee's modified PC test is consistent with the purpose defined by this Commission.

2. The Subcommittee's recommendations for the cost-effectiveness evaluation of LIEE programs and measures, as set forth in Attachment 2, are consistent with our direction in D.01-03-028 and should be adopted subject to two modifications. First, a detailed rationale should be provided for accepting or rejecting measures that fall under the policy or program consideration guideline. Second, the cost-effectiveness tests should be presented for attic insulation by each climate zone, as well as by aggregate utility service territory.

3. The issue of whether a separate UC test is still meaningful should be further explored during an examination of the results of both tests on LIEE program and measure cost-effectiveness.

4. As discussed in this decision, the Assigned Commissioner should develop a schedule and scope for an examination of savings measurement issues for the LIEE program, to be initiated sometime during 2003 as time and resources permit. This examination should be carefully coordinated with the measurement issues we address in the AEAP.

5. In order to move forward as expeditiously as possible with the review of the LIEE program and measures for PY2003, this order should be effective today.

INTERIM ORDER

IT IS ORDERED that:

1. The cost-effectiveness evaluation approach for Low-Income Energy Efficiency (LIEE) programs and measures, as presented in Attachment 2, is adopted subject to the following modifications:

   (1) a detailed rationale shall be provided for accepting or rejecting measures that fall under the policy or program consideration guideline listed on page 16 of Attachment 2.

   (2) the cost-effectiveness test results for attic insulation shall be presented by each climate zone, as well as by aggregate utility service territory.

Nothing in today's decision is intended to preclude the utilities from presenting disaggregated test results (e.g., by housing type or climate zone) for any LIEE measure.

2. Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company and Southern California Gas Company, referred to collectively as "the utilities," are directed to apply the adopted cost-effectiveness methodology to their LIEE programs until further order by the Commission. Within 45 days from the effective date of this decision, the utilities shall augment Applications (A.) 02-07-001, A.02-07-002, A.02-07-003 and A.02-07-003 with an evaluation of the LIEE program and measures using today's adopted methodology. Comments are due 45 days from the date of the utilities' filings, and replies are due 20 days thereafter.

3. As discussed in this decision, the Assigned Commissioner shall initiate an examination of the utilities' current methods for estimating energy efficiency program and measure savings, as well as the types and frequencies of utility measurement studies.

4. The Assigned Commissioner may, for good cause, modify the due dates set forth in this decision.

5. All filings and comments shall be filed at the Commission's Docket Office and served electronically on all appearances and the state service list in this proceeding. Service by U.S. mail is optional, except that one hard copy shall be mailed to Judge Meg Gottstein at P.O. Box 210, Volcano, CA 95689. In addition, if there is no electronic mail address available, the electronic mail is returned to the sender, or the recipient informs the sender of an inability to open the document, the sender shall immediately arrange for alternate service (regular U.S. mail shall be the default, unless another means—such as overnight delivery—is mutually agreed upon). Parties that prefer a hard copy or electronic file in original format in order to prepare analysis and filings in this proceeding may request service in that form as well. The current service list for this proceeding is available on the Commission's web page, www.cpuc.ca.gov.

Dated August 8, 2002, at San Francisco, California.

LORETTA M. LYNCH
President
HENRY M. DUQUE
CARL W. WOOD
MICHAEL R. PEEVEY
Commissioners

Commissioner Geoffrey F. Brown, being necessarily absent, did not participate.

ATTACHMENT 1

LIST OF ACRONYMS AND ABBREVIATIONS

ATTACHMENT 1
LIST OF ACRONYMS AND ABBREVIATIONS

A.	Application
AEAP	Annual Earnings Assessment Proceeding
D.	Decision
ICA	Insulation Contractors Association
LIEE	Low-Income Energy Efficiency
ORA	Office of Ratepayer Advocates
p.	page
PC	Participant Cost
PG&E	Pacific Gas and Electric Company
PY	Program Year
pp.	pages
Report	Final Report for Low Income Energy Efficiency and Measure Cost Effectiveness
RER	Regional Economic Research, Inc.
RHA	Richard Heath and Associates
RRM	Report Requirements Manual
SCE	Southern California Edison Company
SDG&E	San Diego Gas & Electric Company
SoCal	Southern California Gas Company
Subcommittee	Cost-Effectiveness Subcommittee
“the utilities”	PG&E, SDG&E, SCE, and SoCal, collectively
TRC	Total Resource Cost
UC	Utility Cost

(END OF ATTACHMENT 1)

ATTACHMENT 2

LIEE PROGRAM AND MEASURE COST EFFECTIVENESS